



MAXTONSUSPENSION.CO.UK



GP30 FRONT FORK CARTRIDGES

OWNERS MANUAL

TENSION OR REBOUND DAMPING (PURPLE ADJUSTER)

The rebound damping adjuster is located on top of the fork, in the centre of the fork top. It is adjusted using a 3mm Allen key. When you adjust the rebound damping you open and close a needle valve. A needle valve is like a pilot jet in a carburettor, as you turn the rebound damping adjuster clockwise, the needle jet screws further in to the hole or jet. This reduces the area where the oil passes, therefore restricting the flow and increases the damping. As you turn the rebound adjuster anti-clockwise the opposite happens.

To recap :

If you turn the adjuster clockwise it increases the damping, this slows down the return of the fork.

If you turn the adjuster anti-clockwise it reduces the rebound damping, this speeds up the return of the fork.

The rebound damping is what controls the extension of the fork. It can be increased to help the bike turn in to a corner; this will also help the bike hold a tighter line on the exit. If you reduce the rebound damping this speeds up the return of the fork, helping it to recover quicker. This prevents the front of the bike from 'packing' or 'jacking' down.



FIG 1 (PURPLE)

THE REBOUND OR TENSION DAMPING HAS BEEN BASE SET TO MAXIMUM MINUS

CLICKS

COMPRESSION OR BUMP DAMPING (BLACK ADJUSTER)

The compression damping adjuster is also located on top of the fork, in the centre of the fork top. Again when you adjust the compression damping you open and close a needle valve. The needle valve is like a pilot jet in a carburettor, as you turn the adjuster clockwise, the needle valve screws further in to the hole or jet. This reduces the area where the oil passes, therefore restricting the flow and increases the damping. As you turn the adjuster anticlockwise the opposite happens.

To recap :

If you turn the adjuster clockwise it increases the damping, this slows down the compression of the fork.

If you turn the adjuster anti-clockwise it reduces the compression damping, this speeds up the compression of the fork.

The compression damping is what supports the bike with the spring. The compression damping is very important. It is what gives you the "feel" from the front forks; this in turn gives you the confidence to either brake later or carry more speed through a corner.



FIG 2 (BLACK)

THE COMPRESSION OR BUMP DAMPING HAS BEEN BASE SET TO MAXIMUM MINUS

CLICKS

ADJUSTING THE PRELOAD

The preload adjuster is located at the top of the fork. It is adjusted using the appropriate tool in Maxton tool kit supplied with the forks. You can also use a 24mm socket, but you may damage the outside of the preload adjuster.

To increase the preload turn the adjuster clockwise.

To reduce the preload turn the adjuster anti-clockwise.

When setting the preload count the number of turns or revolutions from minimum (fully anti-clockwise). There is a stop on minimum.

The preload controls the static sag in the front of the bike. This is the amount the weight of the bike crushes the forks before the rider sits on the bike. The static sag should be set between 25mm and 30mm.

Many people think that adjusting the preload makes the fork springs harder or softer, this is incorrect. The fork springs are a linear rate, so no matter how much the springs are crushed they are the same strength. The preload adjuster acts like a ride height adjuster :

If you increase the preload it reduces the static sag.

If you reduce the preload it increases the static sag.



FIG 3

THE PRELOAD HAS BEEN BASE SET TO MINIMUM PLUS

REVOLUTIONS

SPRINGS

The springs fitted to your GP30 fork internals are linear strength springs. The springs are made from Silicon Chrome. They have been chosen to suit your rider weight and what you use the bike for. Should you need harder or softer springs contact Maxton Suspension.

THE SPRINGS FITTED TO YOUR GP30 CARTRIDGES ARE

KG/MM

CHANGING FORK SPRINGS

Changing the fork springs can be done in the bike using the Maxton tool kit supplied.

STEP 1 – Put the bike on a rear paddock stand. It may be easier to work on the forks if you also remove the fairing?



FIG 4

STEP 2 – Loosen the top yoke bolts. You may also need to loosen the clip-on bolts if they grip the very top of the fork leg.

STEP 3 – Next using the Maxton preload adjuster tool from the kit and a 3/8" drive speed brace, wind the preload to minimum, counting the number of turns and making a note.

CONT

STEP 4 – Now using the Maxton tool undo the fork top, SEE FIG 4. When undoing the second fork top make sure that two people support the weight of the bike, otherwise the front will collapse and the bike may fall over.

STEP 5 – The fork internals of both fork legs should now be visible, you will see the whole of the fork top, a black spring preload spacer (with flats across) and the inner purple piston rod end.

STEP 6 – The black spring preload spacer and inner purple piston rod end both have flats on, the flats of each component need to be lined up. You do this by holding the spring and rotating the fork top SEE FIG 5



FIG 5



FIG 6

STEP 6 – Next slide the 17mm end of the Maxton Front Fork Cartridge Tool across the two flats of the black preload spacer and inner purple rod end. Then take the Preload adjusting tool attached to a 3/8" drive ratchet and undo the fork top SEE FIG 6

STEP 7 – Next unscrew the fork top from the end of the purple damper rod end, you do this using the preload tool or by hand. As you unscrew the fork top the 17mm spanner will get trapped by the preload. Once the fork top has been removed place it down somewhere clean. Then screw the purple damper rod extending tool from the tool kit onto the end of the purple damper rod end.

STEP 8 – You now need to pull up the damper rod tool using your hand, when you pull the damper rod extending tool up, all the preload comes off the main spring and the 17mm spanner will be free to pull away from the cartridge.

CONT



FIG 7



FIG 8

STEP 9 – The black spring preload spacer will simply lift over the end of the cartridge and so will the spring. SEE FIG 8

STEP 10 – Put the new spring onto the cartridge and put the black preload spacer on top of the spring. As the photo in FIG 8

STEP 11 – Next you need to put the 17mm spanner back across the preload spacer and damper rod end. Line up the two flats of each component, so when you lift up the inner rod you can slide the spanner across the two sets of flats. Lift up the inner rod using the extension tool and slide the 17mm spanner across the two components. This action will trap the 17mm spanner again.

TIP – To make it easier to slide the 17mm spanner across the two sets of flats, place the ends of the 17mm spanner just on the edge of the black preload spacer, then push down the 17mm spanner at the same time as you are lifting the damper rod extending tool.

STEP 12 – Next unscrew the extending tool from the end of the purple damper rod and wind the fork top back on to the damper rod end, then tighten down the fork top. As you do this the 17mm spanner will become free again and slide out of the cartridge.

STEP 13 – Pull up the outer tube and screw back up to the fork top, then tighten the fork top back up using the fork top tool.

STEP 14 – Wind the preload back to your base setting and check your damping setting is correct.

YOU DO NOT NEED TO TOUGH THE DAMPING SETTINGS WHEN CHANGING FORK SPRINGS.



FOR ANY HELP OR INFORMATION ON SET UP OR ADJUSTING YOUR MAXTON DAMPER UNIT PLEASE
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